

AMENDED CLAIMS

[received by the International Bureau on 09 February 2005 (09.02.05);
claims 32 and 33 added; remaining claims unchanged (2 Pages)]

an outlet passage from the device which communicates with said chamber
outlet

5 mix proportioning [flow control] means within said chamber able to alter the
proportions of hot and cold liquids admitted through said entry ports into said
chamber at any rate of combined output flow

10 a temperature sensing device adapted to sense the temperature of the output
of the mixed liquids from the chamber and to control the mix proportioning
means so that the output temperature at all output flow rates from the
chamber can never exceed, except for a small tolerance for a small time, a
selected maximum.

15 30. A device as claimed in claim 29 wherein there is a second entry port for
the cold liquid which is into the output passage of the device downstream from
where the temperature of the output flow from the chamber is sensed.

20 31. A device as claimed in claim 30 which includes a stationary distributing
member and a movable distributing member, the stationary distributing
member having ports to the movable distributing member for the supply of hot
liquid and cold liquid to the movable distributing member and the movable
distributing member regulates the proportions of hot and cold liquid supplied
to the hot liquid entry port and to the cold liquid entry ports and the flow rates
thereof, and enables complete shut-off of all flows to said ports.

25 32. A method of safely mixing convergent flows of a hot liquid and a cold
liquid comprising:
utilising temperature sensing and flow control to regulate a maximum
temperature which could emerge from a device for mixing the convergent hot
30 and cold liquids, and then adding a secondary flow of said cold liquid to
further drop the temperature of the emergent mixed liquids.

33. A method as claimed in claim 32, including the steps of –
controlling the flows of hot and cold liquids to said

device between extremes of full on or completely off for
either liquid and

controlling said secondary flow of cold liquid from full on to a lesser flow,
all of said control steps being performed through a hand movement of 3

5 degrees of freedom.